

# STX1 EXAMINATION LIGHT



**SKYTRON**

**OWNERS MANUAL**

REV 6/05



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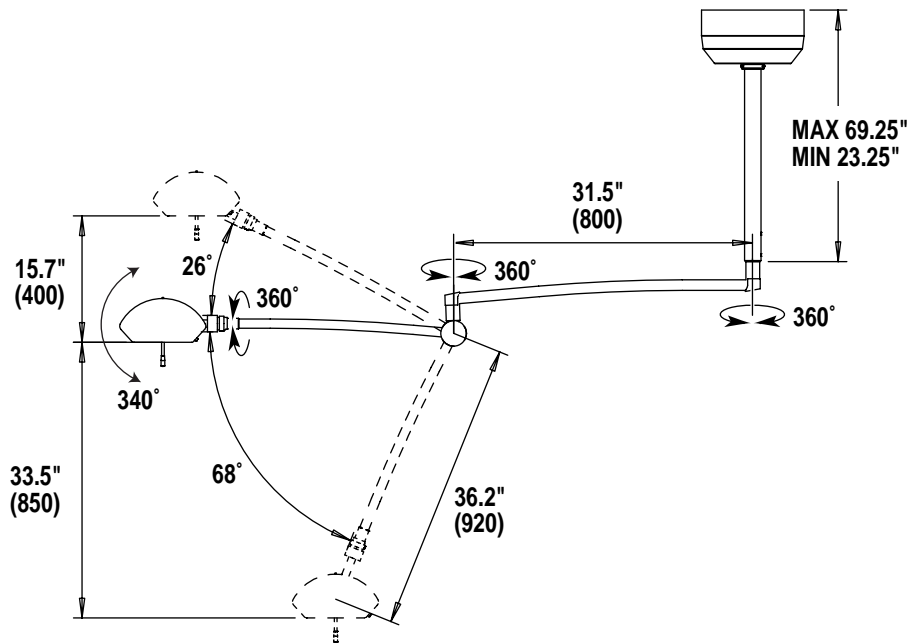
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REV 6/05

Although current at the time of publication, SKYTRON'S policy of continuous development makes this manual subject to change without notice.



## EQUIPMENT LABELS AND SPECIFICATIONS



**Weight:** 21.2 Kg / 47 lbs.

**Light Output:**

**Color Temp:** 4300K

| YES - Power On

0 NO - Power Off

~ AC



B - type connector



**Lamp Rating:** 50W Halogen Bulb

**Class:** IP20

**Voltage:** 22-26 AC/DC

**Primary Fuse:** T0, 315A

**Secondary Fuse:** T3, 15A

**Conditions:**

**Ambient Temperature:** 0° - +40°C

**Ambient Pressure:** 860 - 1060 mbar

**Relative Humidity:** 20% - 75%

**Storage & Transport Temperature:** +10° - +40°C

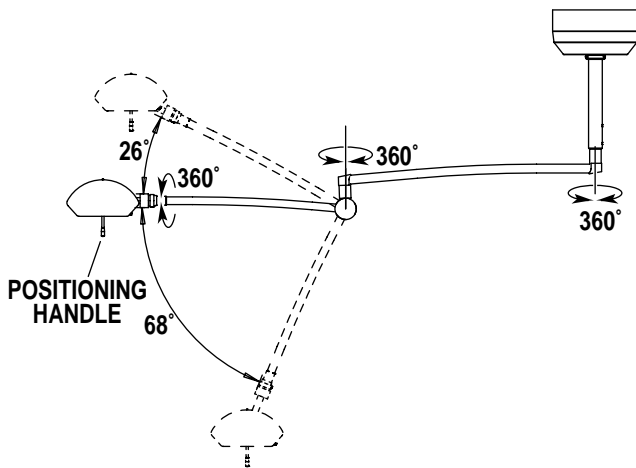
## OPERATION

1. Turn the power to the light fixture "ON" at the wall switch if applicable. Turn the power to the lighthead "ON" at the lighthead mounted switch. See figure 1.



**Figure 1. Model STX1 Lighthead**

2. Using the positioning handle, place the lighthead in the desired position. Refer to figure 2 for full positioning capabilities.



**Figure 2. Model STX1 Positioning**

3. When the light is no longer required, turn the power to the light "OFF" at the lighthead mounted switch, return the lighthead to its full upright position and turn the power "OFF" at the wall switch if applicable.

## MAINTENANCE

To insure proper operation and extend the life of your SKYTRON examination lighting system, the following preventive maintenance procedures are recommended.

### NOTE

All repairs should be made using only authorized SKYTRON replacement parts.

### Daily Maintenance

Daily or between cases, the light fixture should be wiped down with a mild cleaning solution which will not affect the painted or acrylic parts.

- Before attempting cleaning, be sure power to the lighthead is "OFF" and the fixture has sufficiently cooled.

- Avoid the use of cleaning solutions which contain high concentrations of alcohol, ethelene glycol, phenol, iodophors, or glutaraldehyde based disinfectants. Some degree of staining, pitting, and discoloration may occur if these are used.

Always consult with the manufacturer of the cleaning agent for proper application and use. Always spot test on an inconspicuous area before use.

- Use plexi-glass cleaners, DO NOT use alcohol based cleaners on the acrylic diffusers.

- Avoid using excessive amounts of spray cleaners. Leakage of fluids into the lighthead interior may cause corrosion of electrical components.

### Semi-Annual (6-months) Maintenance

- Clean diffuser/Filter Assembly

- DO NOT operate light without the filter/diffuser in place.

- Lubricate as necessary

- Check input and bulb voltage

- Check all fastening hardware

## Bulb Replacement

To replace the Halogen bulb, use the following procedure:

1. Ensure electrical power to the light is "OFF" and the bulb has cooled before changing.
2. Loosen the 1/4 turn screw and remove the lighthouse access cover. See figure 3.

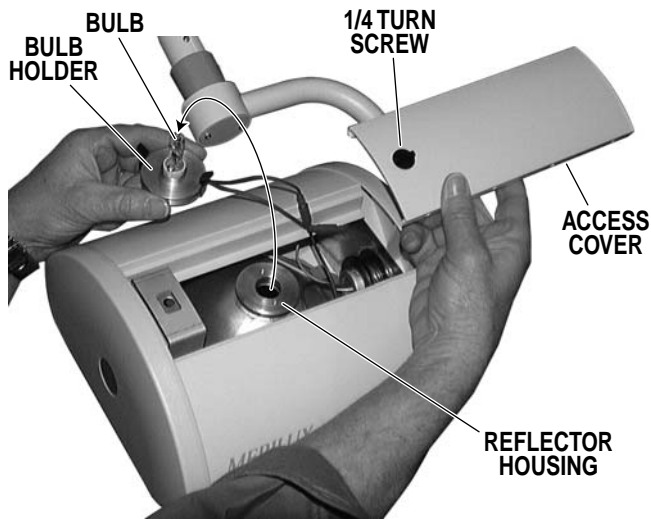


Figure 3.

3. Remove the bulb holder by pulling it straight out of the reflector housing.
4. Hold the bulb by the base and pull it out of the bulb holder. Slightly working the bulb back and forth may aid in bulb removal.

### NOTE

Halogen bulbs are sensitive to body oils. DO NOT handle the glass surface of bulb as body oil from your fingers can create a "hot spot" and may cause the bulb to burn out prematurely.

4. Holding the bulb by the base, plug it directly into the bulb holder. DO NOT touch the glass portion of the bulb surface with your fingers. This can best be done by using the plastic wrapper that the bulb is packaged in or a clean cloth wrapped around the bulb when installing.

5. Replace the bulb holder and access cover. Secure the access cover with the 1/4 turn screw.

## Adjustment

The lighthouse vertical travel tension can be adjusted using the following procedure. See figure 4.

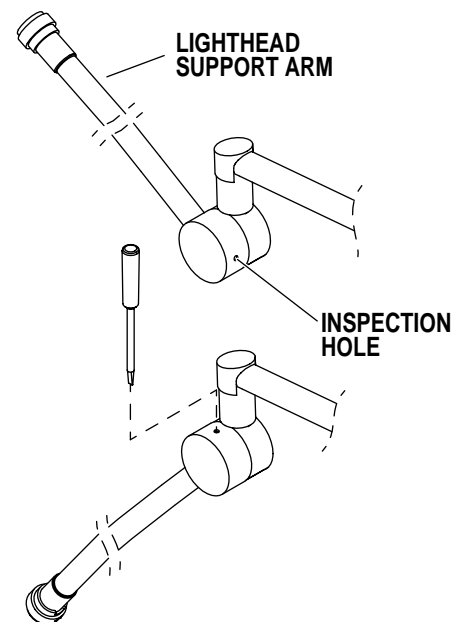
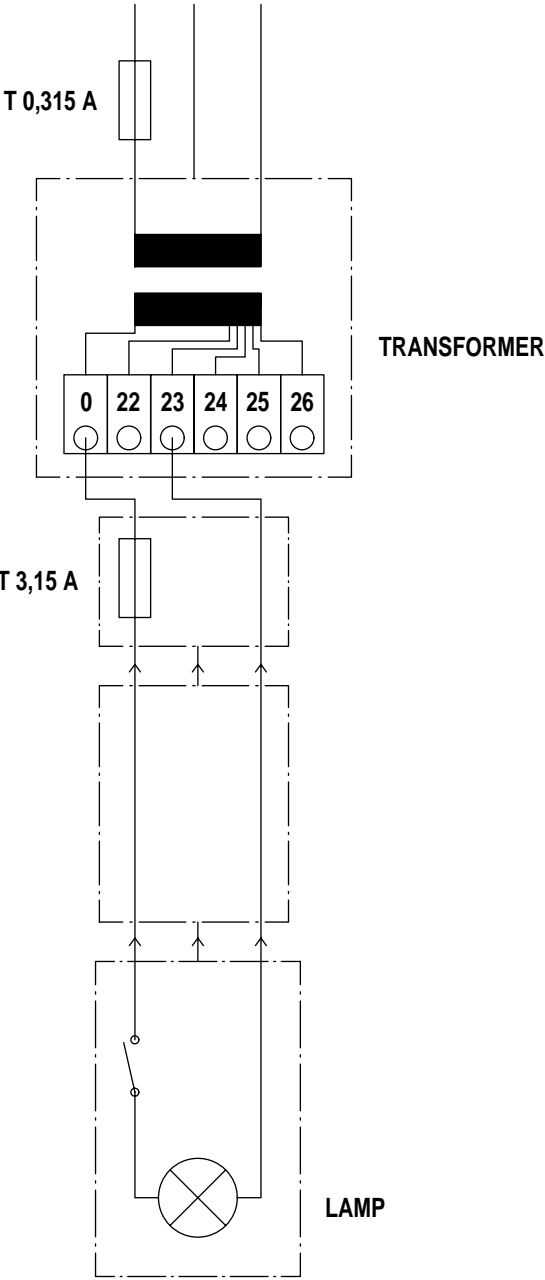


Figure 4.

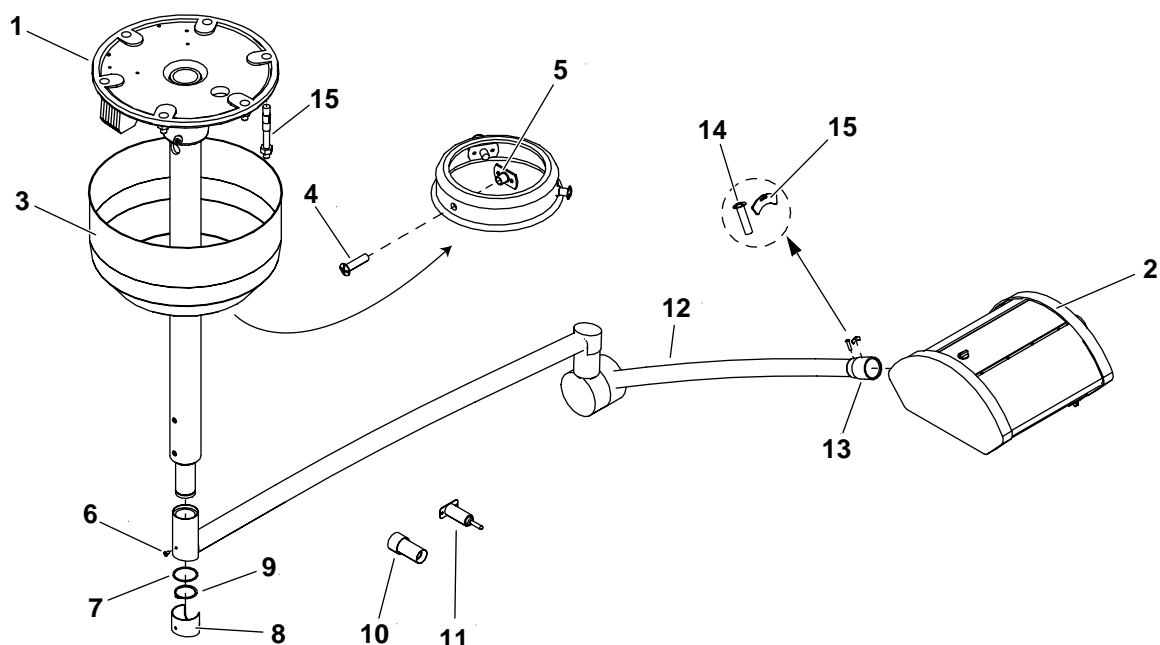
1. Rotate the lighthouse support arm until the adjustment screw is visible through the inspection hole.
2. Turn the adjustment screw clockwise to increase the tension, counterclockwise to decrease the tension.

WIRING DIAGRAM



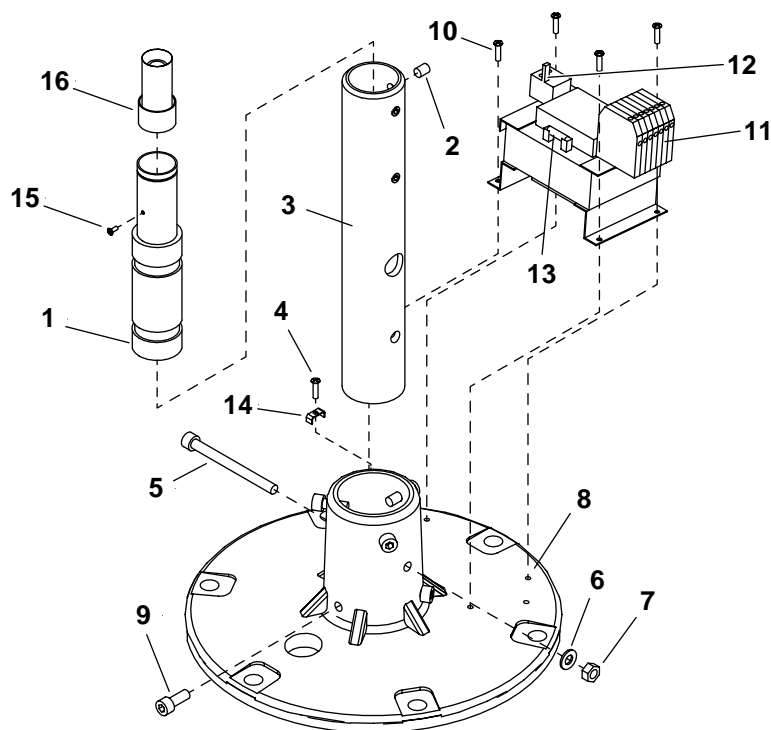


## 1. STX1 ASSEMBLY



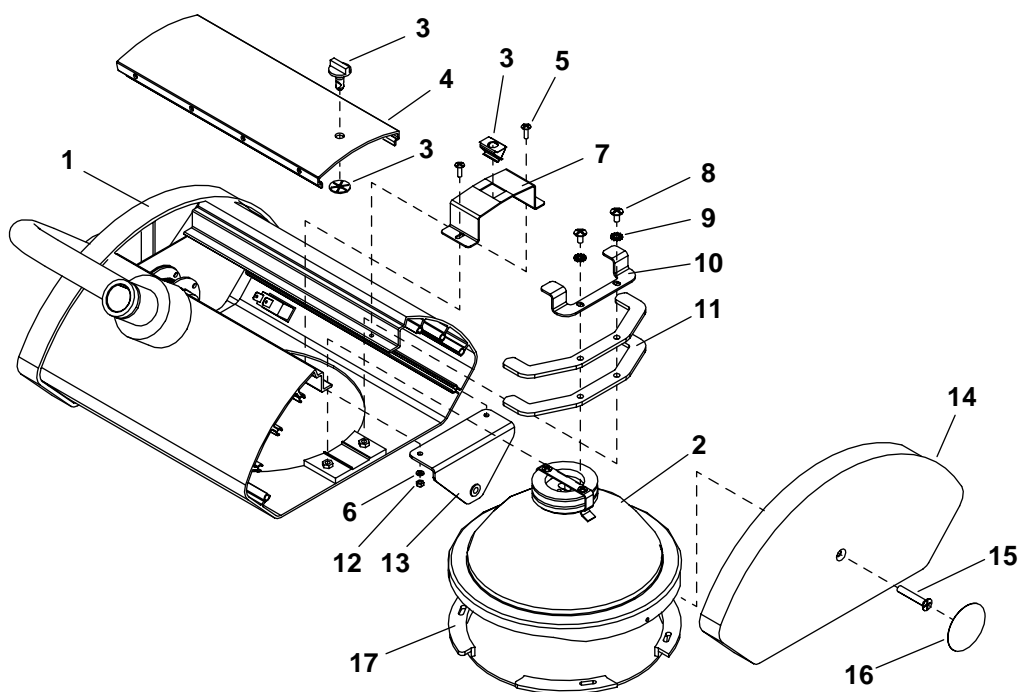
Item	Part No.	Description	Qty.
1		CEILING MOUNT ASSEMBLY .....	1
2	X-501002	LAMP HEAD .....	1
3	X-422182	PROTECTIVE HOOD .....	1
4	X-480399	SCREW, phillips, M4x14 .....	6
5	X-480440	NUT PLATE .....	6
6	X-485686	SCREW .....	1
7	X-422213	WASHER .....	1
8	X-485685	PROTECTIVE CAP .....	1
9	X-422214	RETAINING RING, 32x1,5 .....	1
10	X-421301	BRUSH BLOCK.....	2
11	X-421147	SLIP RING .....	2
12	X-485681	ARTICULATED ARM.....	1
13	X-485683	PLASTIC COLLAR .....	1
14	X-485684	SCREW .....	1
15	X-485682	LOCKING DEVICE .....	1

## 2. CEILING MOUNT ASSEMBLY



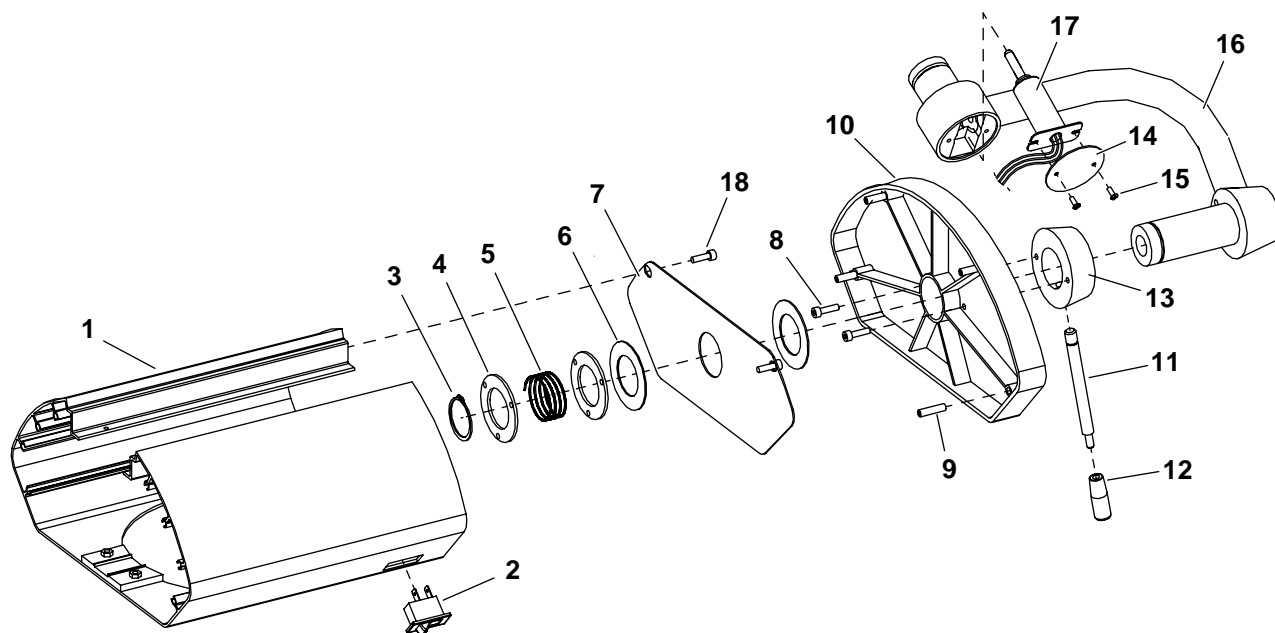
Item	Part No.	Description	Qty.
1	X-4221700	TUBE .....	1
2	X-480396	VST SCREW, M8x8 .....	4
3		VERTICAL SUPPORT TUBE (VST) .....	1
4	X-70453	SCREW, 5x16 .....	1
5	X-480292	SCREW, M8x90 .....	1
6	X-70786	WASHER, M8 .....	1
7	X-70732	NUT, M8 .....	1
8	X-422172	MOUNTING HUB .....	1
9	X-70635	SCREW, M8x20 .....	6
10	X-70453	SCREW, M5x16 .....	4
11	X-418142	TRANSFORMER, MCHL 750 .....	1
12	X-418113	PRIMARY FUSE (Glass tube 5x20, T 0,315A) .....	1
13	X-418099	SECONDARY FUSE (Glass tube 5x20, T 3,15A) .....	1
14	X-480460	EARTH PRONG, M5 .....	1
15	X-480163	SCREW, M3x10 .....	1
16	X-421301	BRUSH BLOCK .....	1

### 3. LAMP



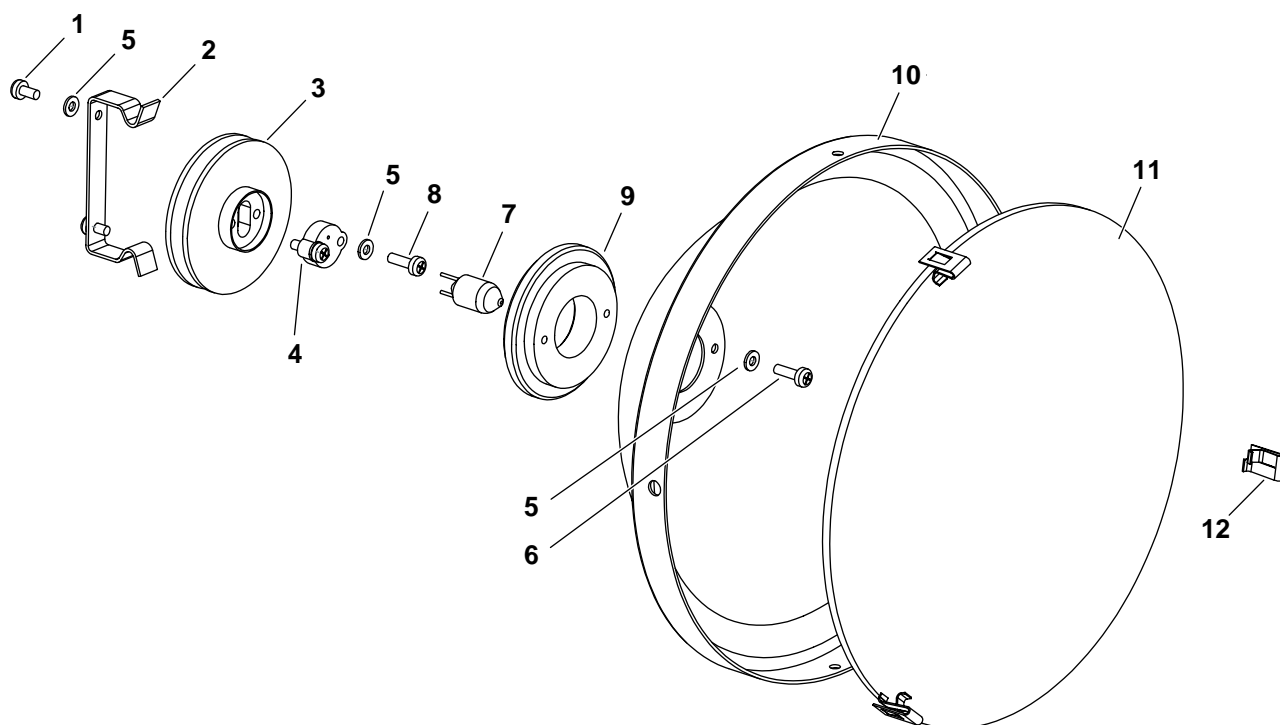
Item	Part No.	Description	Qty.
1		LAMP CASING .....	1
2	X-A3799000	REFLECTOR .....	1
3	X-485295	FASTENER .....	1
4	X-48529700	COVER .....	1
5	X-480165	SCREW, M3x12 .....	2
6	X-480223	WASHER, spring, M3 .....	2
7	X-485239	SECURING PIECE .....	1
8	X-480399	SCREW, M4x14 .....	4
9	X-70768	WASHER, notched, M4A .....	4
10	X-485241	HOLDER .....	2
11	X-485235	FILLER PIECE .....	4
12	X-480211	NUT, M3 .....	2
13	X-706804	CLAMPING SCREW, M5x16 .....	4
14	X-485294	END PIECE .....	1
15	X-480457	SCREW, M5x30 .....	1
16	X-485137	DECAL .....	1
17	X-485281	PROTECTIVE GLASS .....	1

## 4. LAMP CASING



Item	Part No.	Description	Qty.
1	X-48529600	CASING .....	1
2	X-421134	SWITCH .....	1
3	X-485299	RETAINING RING, 29x1,5 .....	1
4	X-485240	RING .....	2
5	X-485260	SPRING .....	1
6	X-485286	SLEEVE BEARING .....	2
7	X-485238	PLATE .....	1
8	X-706112	SCREW, M4x12 .....	2
9	X-706804	CLAMPING SCREW, M5x16 .....	4
10	X-485294	END PIECE .....	1
11	X-48526600	LEVER .....	1
12	X-421135	HANDLE .....	1
13	X-48524400	COLLAR .....	1
14	X-485290	PLATE .....	2
15	X-480159	SCREW, M3x6 .....	1
16	X-4852790	YOKE, lighthouse .....	1
17	X-421147	SLIP RING .....	1
18	X-485333	SCREW, M6x12 .....	2

## 5. REFLECTOR



Item	Part No.	Description	Qty.
1	X-480159	SCREW, M3x6 .....	2
2	X-485510	SPRING .....	1
3	X-485334	CYLINDER .....	1
4	X-485289	BULB BASE ASSEMBLY .....	1
5	X-480223	WASHER, spring, M3 .....	6
6	X-7043431	SCREW, M3x8 .....	2
7	X-485288	BULB, 50W / 22,8V G 6.35 .....	1
8	X-70437	SCREW, M3x16 .....	2
9	X-485507	TIGHTENER .....	1
10	X-485578	REFLECTOR .....	1
11	X-422156	FILTER .....	1
12	X-A41504600	CLAMP .....	3

**UNCRATING**

•Should any damage to the SKYTRON Examination light be noted while uncrating, further unpacking should be stopped and the container with all the wrappings held for inspection. The transportation company should be notified IMMEDIATELY so an inspector can be sent. Consult the Damaged Shipment Claim Procedure for further details.

•Personnel uncrating and installing SKYTRON Examination lights should be aware that they are delicate medical equipment and special care in handling should prevail throughout installation.

**INSTALLATION INSTRUCTIONS**

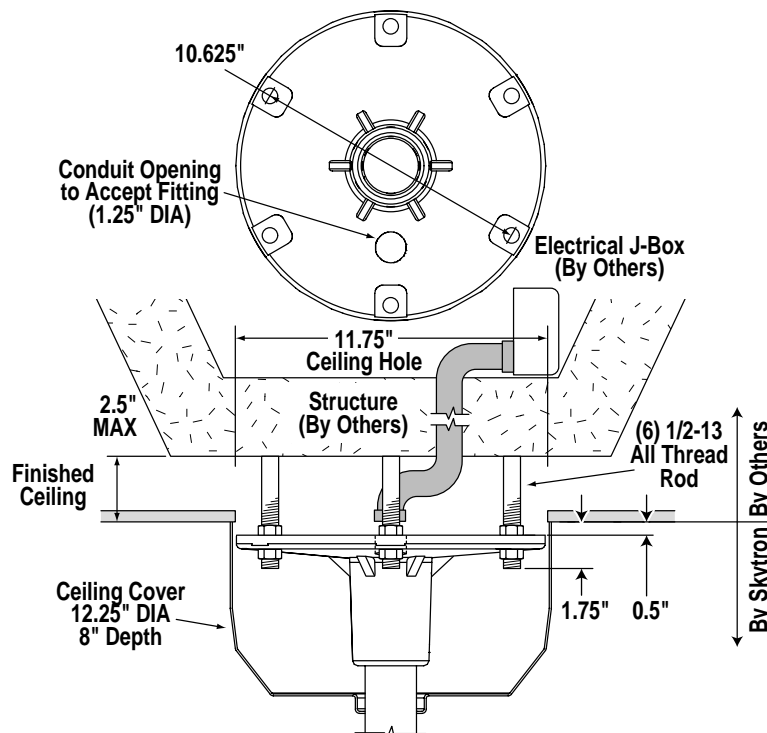
Check the strength and stability of the mounting structure. See figure 1. The six 1/2" diameter

threaded rods should be SECURELY mounted to the ceiling for total support of the fixture. These rods are mounted in a 10.625" diameter pattern and should extend 1.75" below the finished ceiling. Refer to Mounting Structure Details.

**Mounting Hub Installation**

1. Install the mounting hub assembly on the threaded rods between the jam nuts. The bottom of the mounting hub should be 0.5" below the finished ceiling for proper ceiling cover fit.

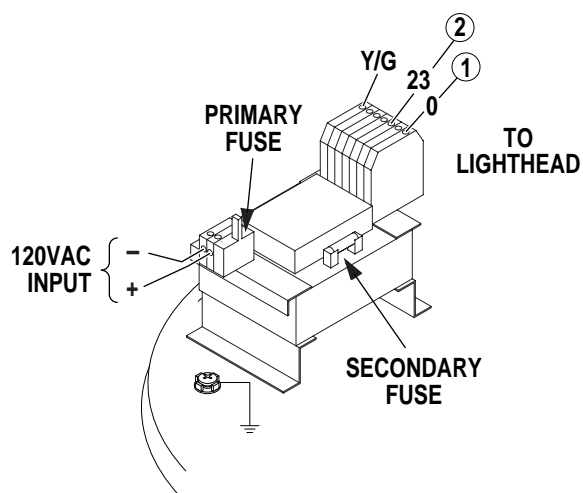
2. Connect the transformer wires to a 120 VAC 60 Hz power source using a DPST wall switch and ground the fixture properly. Use conduit between the hub and the facility junction box.

**NOTES**

Refer to specific installation instructions.

1. 1/2" support rods located for total support of light, all labor and materials for mounting structure fabrication supplied by General Contractor. Fixture to be level at mounting and positioned as shown to assure proper fit of ceiling cover.
2. All conduit, wiring, and other electrical materials as well as installation labor for the SKYTRON exam light to be provided by Electrical Contractor. All installations of SKYTRON exam lights should be under the direct supervision of a SKYTRON representative. All wiring to be in accordance with local codes. 120VAC power supply to control fixture to be properly circuit protected.
3. CONTRACTOR HAS FINAL RESPONSIBILITY for the strength and stability of the Mounting Structure.

**Mounting Guideline**



### Wiring Connections

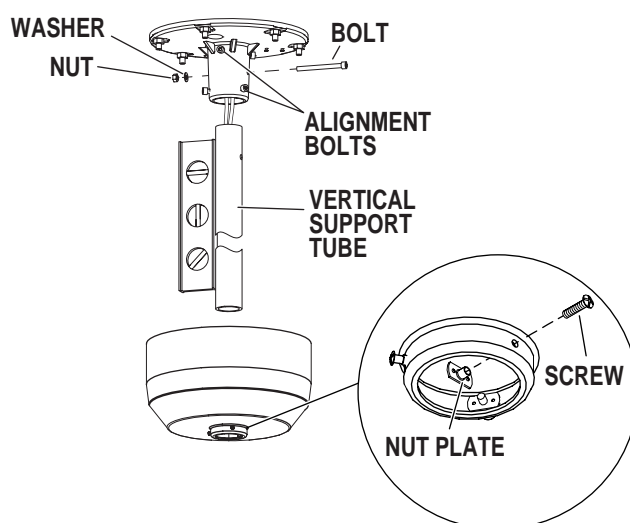
#### Vertical Support Tube Installation

1. Remove the nut, washer and bolt from the hub assembly and loosen the six alignment bolts.
2. Install the VST into the hub and secure with the bolt, lockwasher and nut removed in step 1.
3. Using a level, adjust the alignment bolts for the VST until it is plumb.
4. Connect the wires from the vertical support tube to the terminal strip. Yellow/Green to (ground) Yellow/Green, Black "1" to 0, Black "2" to 23.

#### NOTE

- All SKYTRON supplied fasteners are metric thread.
- Apply Loc-Tite to all of the VST mounting screws.

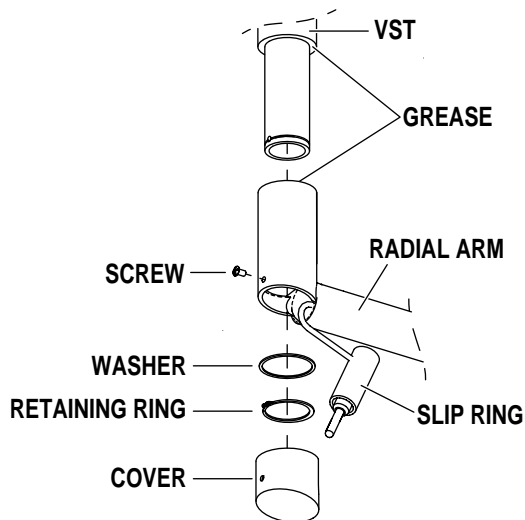
5. Install the ceiling cover and secure with the three screws and nut plates provided. See figure.



#### Vertical Support Tube

## Radial Arm Installation

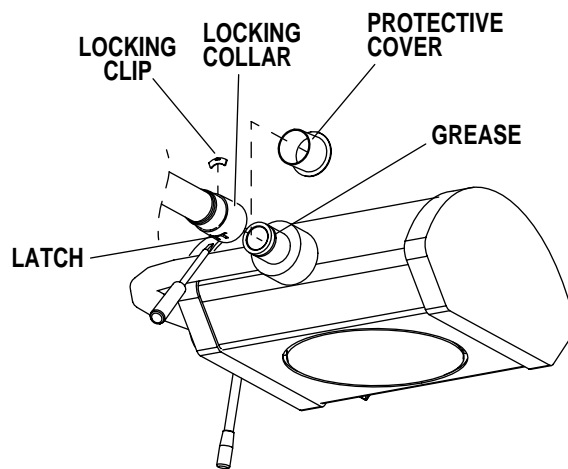
1. Remove the retaining ring and washers from the Vertical Support Tube (VST).
2. Remove the screw securing the cover from the end of the radial arm and remove the cover.
3. Apply grease to the mating surfaces of the radial arm and VST.
4. Install the radial arm assembly on the VST, install the washers and retaining ring.
5. Install the slip ring from the radial arm into the brush block of the VST. Install the cover and secure with the screw.



Radial Arm

## Lighthouse Installation

1. Use a screwdriver to release the latch on the locking collar and turn the collar 90 degrees.
2. Remove the protective cover from the end of the radial arm.
3. Apply grease to the mating surfaces of the radial arm and lighthouse.
4. Install the lighthouse, install the locking clip and make sure it is at the bottom of the groove.
5. Rotate the locking collar until it locks in place.



Lighthouse



## DAMAGED SHIPMENT CLAIM PROCEDURE

Whenever a shipment suffers damage while in the custody of the transportation company, the responsibility lies with the transportation company, and the value of the damages can be collected from the transportation company if the proper procedures are followed.

When a shipment is received in a damaged condition, and due to the appearance of the containers such as a broken crate, torn wrapping, or smashed carton the contents may have been damaged. That fact should be noted on the Bill of Lading offered by the transportation company. An example of an applicable statement would be; "Received in good order except as noted" or "Crate damaged, possibility of concealed damage." The addition of these types of statements on the shipping documents will automatically give grounds for starting a claim.

If damage cannot be identified on the exterior of the container, but is found when the container is opened, further unpacking should be stopped immediately and the container with all wrapping or packing materials should be held. The transportation company should be notified so an inspector can be sent. Failure to follow either of these two procedures may result in an inability to file a claim and collect for damage done. Returning the container to the sender without such an inspection may prevent filing a claim, because it will divide the responsibility for damage and in many cases the

transportation company will return the shipment to the sender without charge after the inspection.

The claim itself may be filed by either the shipper or consignee, but the consignee must notify the transportation company and the shipper that the damage has occurred. Remember that refusal of the shipment or failure to note the possibility of damage on the shipping documents may jeopardize the claim. Also, acceptance of a damaged shipment which has been processed properly to allow for filing a claim, will not jeopardize the position of the consignee. In any case, SKYTRON will see that damage which is not the fault of the consignee or his agents is corrected, if the transportation company does not honor the claim, as long as SKYTRON receives the full cooperation of the consignee in filing the claim.

Some of the papers needed for filing a claim are in the hands of the consignee after the shipment has been received. If SKYTRON must file a claim, we will request these papers by name from the consignee at such time as the claim is under discussion. We will require the originals of these papers and not copies.

Knowledge of the procedures outlined above and your cooperation in submitting damaged shipment claims, will help both you, our customer, and SKYTRON by assuring the integrity of our products from manufacturing to installation.

## SKYTRON SURGICAL LIGHTS AND TABLES LIMITED WARRANTY

**Limited Warranty.** SKYTRON, a Division of the KMW Group, Inc., warrants only to the original purchaser (the "Customer") that the products that it sells, either directly or through its distributors or other authorized representatives, shall not be "defective" for the applicable time provided for, and subject to the conditions and exceptions stated in, this warranty. A product shall be considered "defective" if SKYTRON determines that it is defective in materials or workmanship and that the defect materially impairs the value of the product under normal use, maintenance and service. This warranty does not apply to (i) any product that is modified or altered, (ii) minor product adjustments necessitated by ordinary wear and tear or (iii) damage to the products caused by accident, use of replacement parts other than original OEM parts, unauthorized repairs, improper installation or use, abuse, lack of user training, or failure to comply with SKYTRON's instructions. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.

**Warranty Period.** The warranty on replacement parts, spares, bulbs (for surgical lights), pads and accessory items (for surgical tables) shall extend for 90 days from the date of receipt by the Customer. The warranty on all SKYTRON Surgical Lights and Tables shall extend for two years from (i) the initial installation of the product by Customer or (ii) the first anniversary of the date of shipment to the Customer, whichever is earlier. If SKYTRON supplies a replacement part or product under this warranty, then the warranty on such replacement part or product shall terminate upon (i) 90 days or (ii) the end of the remaining period of the original warranty, whichever is of greater benefit to the Customer.

**Remedies.** If a product proves defective during the applicable warranty period, and if the Customer gives SKYTRON and the distributor from whom the Customer purchased the product written notice of the defect within such period and complies with all other terms of this warranty, then SKYTRON or its authorized service agent shall repair or replace the defective product or part thereof, at SKYTRON's option. If necessary, this warranty includes the cost of service labor and travel time to the site of product use for two years; provided, however, that delays caused by the Customer in accessing the product for repair will be chargeable to the Customer at SKYTRON's authorized service representative's normal hourly rate. If SKYTRON (or its authorized representative) fails to repair or replace any defective product or part thereof within a reasonable time, then SKYTRON shall be liable for the reasonable cost of repair by a third party, but the Customer shall not obtain repair by a third party without giving SKYTRON at least 15 days prior written notice, during which time SKYTRON (or its authorized representative) may repair or replace the defective product or part thereof. This is the sole and exclusive remedy for any defect.

**Limitations.** SKYTRON SHALL NOT BE LIABLE TO THE CUSTOMER OR TO ANYONE ELSE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY, INDIRECT, OR PUNITIVE DAMAGES ARISING FROM ANY DEFECT, DELAY, NONDELIVERY, RECALL, OR OTHER BREACH BY SKYTRON, INCLUDING, BUT NOT LIMITED TO, PERSONAL INJURY, DEATH, PROPERTY DAMAGE, LOST PROFITS, OR OTHER ECONOMIC INJURY. SKYTRON shall not be liable to the Customer or anyone else in tort for any negligent design or manufacture of any products, or for the omission of any warning with respect thereto.

**Miscellaneous.** No dealer, employee, or other representative of SKYTRON may extend or enlarge this warranty, waive any of the limitations, or make any different or additional warranties with respect to the products. Any statements to the contrary are null and void unless made in writing signed by an authorized officer of SKYTRON. This warranty shall be governed by Michigan law. Any action arising out of or relating to this warranty shall be brought in any federal or state court located in Kent County, Michigan and having jurisdiction of the subject matter, and any such court shall have personal jurisdiction over the parties and the parties waive any objection that the court is an inconvenient forum.



